LANDFILL GAS

Biofilter

The performance of a biofilter depends to a great extent on the filter material. The filter material adsorbs the odorous compounds or other air pollutants from the waste air stream. Naturally existing microorganisms on the organic material receive the energy and nutrients they need from the decomposition of these compounds. In practice there are many different filter materials in use: composts, bark or bark products, peat products, heather, lava, etc. Our filter material is based on shredded pine roots. A specific preconditioning procedure increases the media's surface area, which is populated by microorganisms. The filter material's low pressure drop provides for low energy costs. Our filter material is extremely stable, and alters its physical and microbiological properties only slightly over time. There is practically no long-term compaction of the filter bed. Therefore, our range of Biofilters continue to function reliably for three to seven years, depending on the environmental conditions. After this time, the used filter material can be readily composted without further treatment.

This stable structure results in a low pressure drop providing for low energy costs. Our special preconditioning procedure increases the media's surface area, which is populated by microorganisms, resulting in a very high removal efficiency of the biofilter material.

Biofilter Material :

BBS 50 BPC-BT: appropriate for our small biofilters,
BBS 100 BPC-BT: appropriate for our large biofilter systems.
Our compact biofilters are filled with a mixture of BPC-BT 50 and BPC-BT 100.

BBS 50 BPC-BT

BBS 100 BPC-BT

Physical Properties of BBS 50/100 BPC-BT (*)	Size/Range
Dry Weight (bulk weight)	appr. 150 kg/m^3
Wet weight (biofilter material in use)	appr. 280-420 kg/m^3
Water holding capacity	appr. 270 kg/m^3
Back pressure at 150 m^3/m^2 x h of area load	<3 mbar/m=300 Pa/m
pH value (range of stable operation)	2.5-8.8.
Area load (max. allowed)	230 m^3/m^2 x h

(*) like with other biological materials, physical properties might change with the source of the material. Sizes given above should be understood as standard values.

Warranty

Our company provides thee years of functional warranty for biofilter materials. Under the following conditions 1 to 5:

(1) Humidity of waste air >96%
(2) Temperature of waste air between 15 °C and 40 °C
(3) H2S and / or NH3 concentration in waste air < 50 ppm
(4) Odor concentration in Waste air <15,000 OU/m^3
(5) Filterbed volume load = 100m^3/m^3 x h

Purification grades of > than 97.5 % will be achieved

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